

**EIA report on  
“Tung Chung Line Extension”**

**Relevant Extract of the draft minutes of  
the Environmental Impact Assessment Subcommittee meeting  
held on 11 April 2022**

**Question-and-Answer Session (Open Session)**

Action

*Launching Shaft Location*

1. In response to the Chairperson and a Member's question on the environmental impact of the three launching shaft options for the TBM, Mr Franki Chiu advised in the meeting that the environmental impact for launching shaft Option 1 at Tung Chung Crescent or Option 2 at Tung Chung West (TCW) would be comparable as the size of the shaft of the two options would be similar. As for Option 3 at South of Shun Tung Road, it would cause more adverse environmental impact than the other two options given the need of an additional shaft on an existing slope for the connection of the new tunnel to the existing overrun tunnel at Tung Chung (TUC) Station. The additional shaft would lead to a loss of the woodland, shrubland and vegetation on the slope as well as produce more noise, air pollution and inert construction and demolition (C&D) materials. Mr Chiu supplemented that this option would also cause more nuisances to the local community as a diversion of the existing utilities, such as water pipes and high voltage power cables etc. would be involved.

2. In response to a Member's enquiry on the reasons for adopting the cut-and-cover method for all of the three options, Mr L K Ng replied that the cut-and-cover construction method was inevitable for the section near Tung Chung Crescent. He explained that there would be a change in tunnel cross-section from the TUC Station overrun tunnel to the TBM tunnel beneath Shun Tung Road. It would also be necessary to remove the existing precast panels at the overrun tunnel end wall for the tunnel extension which could not be demolished from the existing operating tunnels. Moreover, there was insufficient soil cover for adopting the TBM method at Tung Chung Crescent and trial pits identifying left-in obstructions from previous construction works also made the TBM option risky.

### *Railway Line Alignment*

3. A Member and the Chairperson sought justifications for adopting alignment Option 1 which was presented in the EIA Study Brief. Mr Franki Chiu explained that with the TBM tunnel passing underneath the North Lantau Hospital in the Yu Tung Road Alignment under Option 2, the operational rail vibration would likely exceed the limits set by the hospital operator even with the best practicable mitigation measures in place. The Chung Yan Road Alignment under Option 3 was also undesirable as the location of the TCW Station under this option would be less accessible by the existing and planned population of TCW. In view of the above, alignment Option 1 which would be closer to the population of TCW was selected as the preferred option.

### *Construction Programme*

4. In reply to a Member's question on the programme of the construction activities for the launching shaft at Tung Chung Crescent, Mr L K Ng said that the construction period was expected to last from 2023 to 2029. Major activities include site mobilisation and noise enclosure erection, excavation, tunnel boring and tunnel structures construction, construction of tunnel structure at the launching shaft, backfilling and reinstatement works for the open space.

5. Two Members expressed concern over the long duration of the construction works. In response to a Member's suggestions to help compress the construction programme, Mr L K Ng advised in the meeting that they would require the construction contractor to adopt appropriate methods, such as the use of Design for Manufacture and Assembly (DfMA) and Modular Integrated Construction (MiC), with a view to reducing the construction time as far as practicable.

### *Noise Enclosure*

6. A Member enquired about the reasons of the longer time required for completion of noise enclosure at TCW as compared with the proposed noise enclosure for the launching shaft at Tung Chung Crescent. Mr L K Ng explained that the noise enclosure for launching shaft at TCW would involve the land resumption process where more time would be required for lobbying the residents and agreeing on the compensation terms etc.

7. A Member expressed concern about the potential noise and air pollution arising from the construction works at the launching shaft of Tung Chung Crescent.

Mr Franki Chiu advised Members that a temporary noise enclosure would be installed at Tung Chung Crescent to mitigate noise impact during the construction phase. He expected that the noise, air and visual impacts to the residents nearby would be largely minimised after the construction of the noise enclosure in about 1.5 years. Another Member further enquired and Mr Chiu clarified that the temporary noise enclosure would be a full enclosure, instead of simple noise barriers.

8. A Member was concerned about the locations of the ventilation outlets at the mucking out openings of TCW Station top slab, which might cause noise nuisances to the local residents. Mr Franki Chiu explained that the size of the ventilation outlets should be small and appropriate measures would be taken to identify suitable locations for the outlets with a view to minimising any potential nuisances to the residents.

9. In response to a Member's enquiry on the hours of construction works, Mr Franki Chiu said that it was set out in the EIA report that construction works would normally be carried out during day time. He supplemented that construction works during restricted hours would only be carried out if an application for Construction Noise Permit (CNP) was approved by the EPD in accordance with the relevant Ordinance.

### *Social Impact*

10. A Member enquired if social impact assessment had been conducted for the project. Mr Franki Chiu advised Members that social impact assessment was not conducted as part of the EIA report as it was not covered under the EIA Ordinance. Nonetheless, the project proponent had given due considerations of the possible impact of the project and kept close communications with the local community.

11. In view of the proximity of the TCW Station to the neighbouring housing estates, two Members suggested that there should be channels for the local residents to express their views or make complaints regarding noise issues arising from the construction works. As a good practice, the project proponent should maintain close communication with the local residents with a view to working out effective measures to mitigate the possible impacts. Mr Franki Chiu reconfirmed that a noise enclosure at Tung Chung Crescent would be installed to minimise the noise nuisances to the local residents. He advised Members that the EIA Report had recommended environmental monitoring and audits to be carried out during the construction phase to ensure that the environmental impacts to the sensitive receivers nearby would comply with the relevant legal requirements. Ms Lisa Poon

supplemented that the MTRC would maintain communications with the stakeholders, including local residents and green groups, with a view to minimising the adverse impact of the project as far as possible.

### *Ecological Impact*

12. In response to a Member's enquiry on the landscape of the project site during and after the construction works, Mr Franki Chiu shared with the meeting the key landscape features of Ying Tung Estate and Yat Tung Estate with the aid of photomontages which were presented in the EIA Report.

13. With regard to the compensatory tree planting, a Member enquired about the type of trees to be felled and the rationale for planting the majority of the compensatory trees in the hillside area near Tung Chung Road. Mr Franki Chiu confirmed that most of the trees to be felled were fruit trees from the orchards. In the absence of sufficient space within the station areas, Ms Stella Fung said that the compensatory trees would be planted elsewhere in TUC. The project proponent had liaised with relevant government departments to identify possible locations for planting the compensatory trees within TUC and even outside TUC. While the EIA report had indicated the feasibility to accommodate around 1,000 trees in the hillside area near Tung Chung Road, Mr Chiu supplemented that the actual locations for compensatory tree planting were to be finalised later at the design stage.

14. Instead of meeting only the minimum requirement, a Member remarked that the project proponent could select the locations for compensatory tree planting strategically with the aim to enhance urban ecology. As an alternative location, the Member suggested Shek Sze Shan which would be a better option to enhance the ecological connectivity between TCW and Tung Chung East (TCE). With reference to the ecological corridor in Singapore, the Member further suggested building an ecological bridge with shrubs to connect the TCE Station and the Lantau North (Extension) Country Park. He added that native tree species, such as *Ficus*, should be adopted in the streets of TUC. Ms Lisa Poon thanked the Member for his valuable suggestions which would be taken into consideration at the design stage.

15. To address a Member's concern about the preventive measures for adverse environmental impact to the mangroves and mudflats in the vicinity, Mr Franki Chiu indicated that no marine works would be carried out in Tung Chung Bay to avoid any direct impact on mudflats, mangroves and intertidal areas. Any potential construction run-off would be diverted to sedimentation tank and be treated properly before discharging.

16. In reply to a Member's further question on the discharge point of wastewater, Mr Franki Chiu said that a barrier would be installed along the western boundary of the construction site for the TCW Station to divert the wastewater into sedimentation facility before discharging in accordance with the requirement under the relevant Ordinance. An appropriate discharge location would be identified at the construction stage.

17. With reference to the slurry leakage issue in another tunnel construction project, a Member enquired about the mitigation measures for potential slurry spillage to ecological habitats above ground arising from the TBM works. Based on the experience gathered in the previous tunnel construction projects, Mr L K Ng said that they had carefully planned the drilling locations for ground investigation works. Charted drill holes would be checked to ensure that they were properly sealed prior to the passing of TBM. In addition, the underwater section of the alignment would be constructed largely in the granite layer to prevent any potential leakage of slurry into the sea.

#### *Construction Waste*

18. In view of the large amount of inert C&D waste to be generated, the Chairperson enquired about the C&D plan of this project. Mr L K Ng advised that a C&D materials management plan had been devised with the target of minimising construction waste as early as the design stage. The proposed options for the TBM launching shaft as well as the Emergency Access Point/Emergency Egress Point would generate less C&D materials among options available. The project proponent would explore different possibilities to re-use and recycle the C&D materials in liaison with other works projects and government departments, such as the Civil Engineering and Development Department. The Chairperson stressed that the project proponent should endeavour to minimise, re-use and recycle the C&D waste as far as practicable.

#### *Other Environmental Initiatives*

19. Apart from mitigating measures for negative impacts, a Member suggested with the support of two other Members that the project proponent should strive to bring about positive environmental impacts through the project and incorporate carbon reduction and energy saving measures, such as adopting natural lighting and ventilation, for enhancing the environmental quality. Subject to the detailed design at a later stage, Mr Franki Chiu advised Members that the use of photovoltaic panels,

rainwater harvesting, prefabricated construction methods and energy saving equipment would be considered. Ms Lisa Poon supplemented that various green and low-carbon features would be incorporated in the project where possible to enhance energy saving and energy efficiency. Having regard to the MTRC's overall carbon reduction targets to achieve carbon neutrality by 2050, Ms Poon said that they would strive to reduce carbon emissions in this project as far as practicable.

20. A Member enquired whether the project proponent would target to achieve any international standards or certification on sustainability and resilience. Ms Lisa Poon advised the meeting that the MTRC was aiming at a certification under BEAM Plus with a view to achieving high sustainability standards in this project.

### *Conclusion*

21. There being no further questions from Members, the Chairperson thanked the project proponent team for their detailed presentation and clarification in relation to the project.

*(The presentation team left the meeting at this juncture.)*

### **Internal Discussion Session (Closed-door Session)**

22. The Chairperson advised that the EIASC should make recommendations to the ACE on the EIA report with the following consideration -

- (i) endorse the EIA report without condition; or
- (ii) endorse the EIA report with conditions and / or recommendations; or
- (iii) defer the decision to the full Council for further consideration, where issues or reasons for not reaching a consensus or issues to be further considered by the full Council would need to be highlighted; or
- (iv) reject the EIA report and inform the project proponent of the right to go to the full Council.

23. The Chairperson proposed and Members agreed to endorse the EIA report with conditions and recommendations.

### *Compensatory Tree Planting*

24. Considering the fairly large number of trees to be felled and subsequently compensated by the project proponent in this project, the Chairperson suggested that

the project proponent should provide a plan for compensatory tree planting with a view to enhancing urban ecology. A Member supplemented that local terrestrial ecologists in addition to landscape architects should be engaged in the preparation of the plan.

25. While the suggested plan was feasible, Ms Ho Ching-yee and Mr Terence Tsang informed Members that the objective of compensatory tree planting in the current project was for landscape mitigation purposes and no ecological mitigation was required in this regard based on the findings of the impact assessment. The Chairperson opined that apart from meeting the minimum tree compensation requirement, it would be desirable for the project proponent to take the opportunity of the project to enhance also the environmental quality from the urban ecological perspective.

26. The Chairperson proposed and Members agreed that a condition should be imposed to require the project proponent to devise a detailed Compensatory Tree Planting Implementation Plan (the Plan) with engagement of terrestrial ecologist(s), which shall include details of the planting objectives, planting numbers and locations, and list of native tree species to be used, with the aim to enhance urban biodiversity and compatibility with the surrounding natural environment. The project proponent should consult the relevant authority and seek advice from AFCD on the Plan prior to submission to the DEP for approval before the commencement of the compensatory tree planting.

#### *Noise Enclosure*

27. Given the long duration of the project which would last for six years and the possible size of the noise enclosure, a Member considered it crucial for the project proponent to devise a detailed construction plan for the noise enclosure. The Chairperson concurred with the Member that a plan should be provided to set out details of the noise enclosure and illustrate how it would mitigate adverse noise impact without causing other environmental nuisances to the local community. In addition, another Member expressed concern on the potential impact of temporary traffic arrangement, access points to community facilities as well as other environmental nuisances caused by the vehicles entering and leaving the noise enclosure. Mr Terence Tsang indicated that noise enclosure was a key mitigation measure for various environmental nuisances, such as air, noise, lighting and visual impacts. As such, he had no objection to impose a condition in this respect.

28. As there would be a large amount of construction waste generated from the excavation, a Member considered that the project proponent should set out a detailed plan on the temporary storage arrangement for the C&D waste. Another Member further suggested that health and safety issues of the underground construction works should be addressed. The Chairperson agreed and supplemented that the project proponent should draw up measures to minimise the construction waste to be generated from this project. Mr Terence Tsang explained that according to the EIA report, the C&D waste would be delivered to the public fill receiving facility and the need for temporary on-site storage would be minimal.

29. The Chairperson proposed and the meeting agreed to impose a condition for the project proponent to submit a detailed plan on the proposed noise enclosure at Tung Chung Crescent (the Plan), including but not limited to the details of its design, extent, access point locations and construction vehicle traffic management as well as the program of erection and demolition of the enclosure and site reinstatement, and the arrangement for temporary storage of C&D waste. The Plan shall demonstrate the effectiveness of the enclosure in mitigating the noise, air and any other potential environmental nuisances, as well as health and safety hazards during the construction phase. The Plan should be submitted to the DEP for approval before the commencement of the construction works at Tung Chung Crescent.

#### *Accidental Spillage of Slurry*

30. A Member suggested with the support of the Chairperson that the project proponent should make available a remedy plan in case of any accidental spillage of slurry arising from the construction works.

31. The Chairperson proposed and Members agreed that a condition should be imposed to require the project proponent to develop a contingency and response plan (the Plan) for handling any accidental spillage of slurry arising from the TBM works. The Plan should be submitted to the DEP for approval before the commencement of the relevant part of the construction works.

#### *Wastewater Discharge*

32. The Chairperson suggested that the project proponent should provide detailed information on the location of discharge points and devise a plan on the measures to avoid surface runoff as well as potential contamination of the mudflats nearby. Mr Terence Tsang agreed to impose a condition in this regard.



33. The Chairperson suggested and the meeting agreed to impose a condition for the project proponent to devise a detailed wastewater management plan (the Plan) for the construction works at TCW, which should include locations of the discharge points and the treatment arrangements of wastewater including site runoff, with a view to minimising impacts upon the nearby mudflats and other water sensitive areas in the vicinity. The project proponent should seek advice from AFCD on the Plan prior to submission to the DEP for approval before the commencement of the construction works in TCW.

#### *Social Impact*

34. A Member suggested that the project proponent should establish a mechanism for the residents to express their views on various issues, such as noise and waste problems. Two other Members suggested that the project proponent should proactively engage the relevant stakeholders and facilitate the communication to resolve any issues related to the project. As the project site would take away a recreational space from the local residents, another Member suggested that the project proponent should collect the views of the residents with a view to providing alternative spaces for public enjoyment as far as possible. Mr Terence Tsang had no objection to the recommendations of Members.

35. The Chairperson suggested and Members agreed that the project proponent should be recommended to put in place a mechanism, such as through setting up liaison groups, for maintaining regular communication with the local and relevant stakeholders on issues concerning noise, air, traffic and recreational spaces arising from the Project.

#### *Enhancement of Environmental Quality*

36. A Member suggested that the project proponent should not only mitigate potential adverse impacts on the environment, but also strive to bring positive environmental impacts in this project.

37. The Chairperson proposed and the meeting agreed to recommend the project proponent to explore ways to enhance environmental quality, such as achieving environmental sustainability, reducing construction time and bringing about positive social impact, through the project as far as practicable.

*Carbon Emissions*

38. A Member suggested and another Member echoed that the project proponent should be encouraged to take appropriate measures to minimise carbon emissions.

39. The Chairperson suggested and Members agreed to recommend the project proponent to adopt effective measures to minimise operational and embodied carbon emissions arising from the project, including construction and operational phases, with the aim to achieve carbon neutrality and sustainability and achieve relevant international certifications as far as practicable.

40. There being no other comments from Members, the meeting agreed that the EIA report could be endorsed with four conditions and three recommendations. The project proponent team would not be required to attend the subsequent full Council meeting.

*(Post-meeting notes: The list of proposed conditions and recommendations was circulated to Members for comments on 14 April 2022.)*

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**EIA Subcommittee Secretariat  
May 2022**